

BIOABSORBABLE POLYMERIC IMPLANTS AND A METHOD OF USING THE SAME TO CREATE OCCLUSIONS

Abstract of the Disclosure

5 A new embolic agent, bioabsorbable polymeric material (BPM) is incorporated to a Guglielmi detachable coil (GDC) to improve long-term anatomic results in the endovascular treatment of intracranial aneurysms. The embolic agent, comprised at least in part of at least one biocompatible and bioabsorbable polymer and growth factors, is carried by hybrid bioactive coils and is used to
10 accelerate histopathologic transformation of unorganized clot into fibrous connective tissue in experimental aneurysms. An endovascular cellular manipulation and inflammatory response are elicited from implantation in a vascular compartment or any intraluminal location. Thrombogenicity of the biocompatible and bioabsorbable polymer is controlled by the composition of the
15 polymer. The coil further is comprised at least in part of a growth factor or more particularly a vascular endothelial growth factor, a basic fibroblast growth factor or other growth factors. The biocompatible and bioabsorbable polymer is in the illustrated embodiment at least one polymer selected from the group consisting of polyglycolic acid, poly~glycolic acid/poly-L-lactic acid copolymers,
20 polycaprolactive, polyhydroxybutyrate/hydroxyvalerate copolymers, poly-L-lactide. Polydioxanone, polycarbonates, and polyanhydrides.